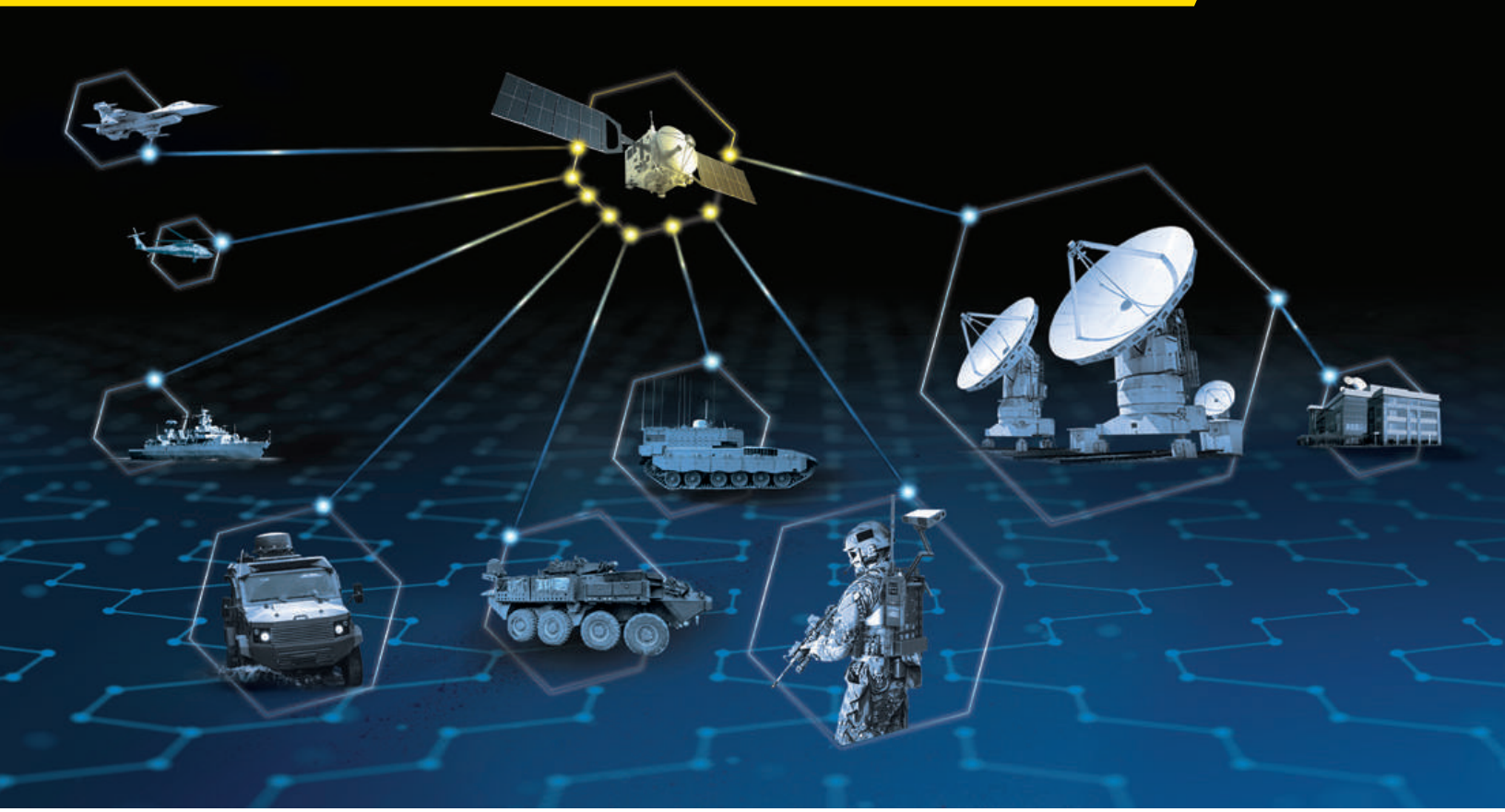
Tactical Satellite Communication Solutions

Comprehensive operational connectivity with reliable and secure on-the-move communication systems



Elbit Systems™
C4I and Cyber

Tactical Satellite Communication Solutions

Comprehensive operational connectivity with reliable and secure on-the-move communication systems

Elbit Systems offers comprehensive, reliable, secure and immune satellite communication (SATCOM) systems for a wide range of tactical networks, platforms and applications. These solutions are designed and tailored to modern battlefield requirements, offering a low total cost of ownership.

Elbit Systems' SATCOM solutions allow military units and operational forces secure and reliable connectivity while maneuvering in challenging environments on land, sea or air. These field-proven SATCOM solutions are integrated with Elbit Systems' solutions and platforms and are in operational use by armies and governments around the world.

End-to-end SATCOM solutions and capabilities

Narrowband SATCOM on-the-walk and on-the-move solutions

The E-LynX™-Sat is a tactical satellite communication solution providing on-the-walk and on-the-move secure SATCOM capabilities for voice and data transmission. The system consists of two main units, a mobile end-user terminal and a hub at a stationary satellite ground station. The E-LynX™-Sat terminal includes a built-in, electronically steered, phased array antenna and a built-in modem designed for low-to-medium data rates and fast acquisition of satellite signals.

- On-the-move solution for narrowband voice and data using phased array antennas
- Add-on satellite communication capability to secured military radio equipment and ruggedized tablet
- Low probability of interception/detection (LPI/LPD) using spread spectrum
- Carrier-under-carrier provides increased spectral efficiency for satellite networking
- Integrated on a wide variety of platforms – manpack portable, vehicular/transportable, shipborne, airborne
- Standard IP protocols and interfaces
- Lightweight (>1kg), compact and simple operation

Wideband SATCOM on-the-move (SOTM) solutions

The ELSAT series of wideband satellite communication solutions delivers reliable and secure high data rate broadband communication in Ka, Ku and X bands while on the move, capable of supporting numerous users simultaneously anywhere and anytime.

Elbit Systems offers a wide range of SOTM terminals meeting customer needs and requirements for diverse operational arenas and scenarios. The systems are available at various frequencies and data rates and in a range of sizes. The high-performance SOTM terminals enable real-time communications for ground, air and maritime forces. Fast and enhanced acquisition and dynamic tracking performance allow the systems to work in challenging environmental conditions, while using military and commercial satellites, including the Wideband Global SATCOM (WGS) satellites network.

- Real-time communications for ground, air and maritime forces
- Triple band: Ka / Ku / X
- Fast and easy swapping between RF heads
- Fast and enhanced acquisition, locking and tracking mechanism
- Wide range of antenna technologies to meet diverse requirements
- GPS independent and modem agnostic
- Integrated on tracked and wheeled platforms
- NMS application for maintenance and support
- Compliant with FCC, ITU & WGS regulations

Drive-away, flyaway and manpack solutions

A wide range of advanced drive-away, flyaway and manpack systems deliver on-demand seamless uninterrupted connectivity and support high downlink and uplink data rates. These systems are available in Ka, Ku, X and C single band or multi-band, with antennas ranging from 60cm to 2.4m.

Integrated logistic support (ILS)

Elbit Systems specializes in tailoring maintenance concepts to customer needs while maintaining the lowest life cycle cost. 24/7 maintenance solutions include on-demand and onsite support.

Satellite earth stations

Elbit Systems provides end-to-end planning, installation and integration of satellite earth stations. Turnkey solutions include site surveys, design and engineering, Network Operating Center (NOC), antennas at various sizes and frequencies, RF equipment, information systems, fiber-optic infrastructure and onsite system installation and integration as well as integrated logistic support (ILS).

Information systems (NMS)

Command, control and management system for Elbit Systems satellite earth stations. The system allows operators to configure, monitor and diagnose the station equipment, monitor the network status, protect the information from hostile attacks and to plan and schedule the use of satellite resources.

Satellite resources

Global satellite resources, across a range of frequency bands, can be provided as part of a turnkey solution.

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Key Benefits

- Reliable and secure critical communications for long-range connectivity
- Operational flexibility through multiple frequency bands: Ka / Ku / X / C / S / L
- SATCOM solutions for dismounted soldiers and for land, maritime and airborne platforms
- Add-on SATCOM capability to secured military radio equipment
- Full integration with other tactical communication layers
- High-performance dynamic on-the-move acquisition and tracking
- Low probability of interception/detection (LPI/LPD)
- Narrowband and wideband solutions
- Dynamic network management system

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